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GOVERNOR

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
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WILLIAM D. ANKNER, Ph.D.
SECRETARY

July 17, 2009

STATE PROJECT NO. 064-01-0040
FEDERAL AID PROJECT NO. 5201(600)
CAMINADA BAY BRIDGE
ROUTE LA 1
JEFFERSON PARISH

SUBJECT: ADDENDUM NO. 10 (CONSTRUCTION PROPOSAL REVISION)
ELECTRONIC BIDDING AMENDMENT NO. 2

Gentlemen:

The following proposal revisions dated 07/17/09 on the captioned project for which bids will be received on Wednesday, July 29, 2009 have been posted on http://www.dotd.la.gov/cgi-bin/construction.asp.

1. Revised the project engineers address on the Notice to Contractors. (1 page)
2. Revised the following special provisions: (6 pages)
   a. **CLASS P(M)(HPC) CONCRETE FOR PRECAST PRESTRESSED CONCRETE PILES SECTIONS 805, 901, 1003, AND 1009**
   b. **NS CORROSION RESISTING DEFORMED REINFORCING STEEL**
3. Added the special provision entitled **ENVIRONMENTAL PROTECTION.** (1 page)
4. Revised the following in the Technical Specifications for Instrumentation Installation Integral Bridge Abutment: (3 pages)
   a. General Notes 4 & 6
   b. Items 4, 7, 9, 11, 12, & 14
   c. The description for items 2 & 3 in Itemized Instrumentation List
5. Revised the quantity for item NS-722-00001 in the Schedule of Items. (1 page)

Please note these revisions in the proposal and bid accordingly. Mandatory electronic bidding is required for this project, and electronic bids and electronic bid bonds must be submitted via www.bidx.com for this letting date.

Sincerely,

Randal D. Sanders

RANDAL D. SANDERS, P. E.
CONTRACTS & SPECIFICATIONS ENGINEER

Attachments
ec: Mr. Brian Buckel
Mr. Michael Stack
Mr. Gary Gisclair
Mr. Brian Delatte
Mr. Eric Burges
Mr. Masood Rasoulian

NOTICE TO CONTRACTORS (11/08)

Electronic bids and electronic bid bonds for the following project will be downloaded by the Department of Transportation and Development (DOTD) on **Wednesday, July 29, 2009. Paper bids and paper bid bonds will not be accepted.** Electronic bids and electronic bid bonds must be submitted through www.bidx.com prior to the electronic bidding deadline. Beginning at 10:00 a.m., all bids will be downloaded and posted online at http://www.dotd.la.gov/cgi-bin/construction.asp. No bids are accepted after 10:00 a.m.

DBE GOAL PROJECT
STATE PROJECT NO. 064-01-0040
FEDERAL AID PROJECT NO. 5201(600)
DESCRIPTION: CAMINADA BAY BRIDGE
ROUTES: LA 1
PARISH: JEFFERSON
LENGTH: 1.168 miles
TYPE: GRADING, DRAINAGE STRUCTURES, CLASS II BASE COURSE, SUPERPAVE ASPHALTIC CONCRETE PAVEMENT, CONCRETE AND GIRDER SPAN BRIDGE, AND RELATED WORK.
LIMITS: STATE PROJECT NO. 064-01-0040: LOCATED ON ROUTE LA 1 OVER CAMINADA BAY.
ESTIMATED COST RANGE: $30,000,000 to $50,000,000
PROJECT ENGINEER: GISCLAIR, GARY; 5056 West Main St. Houma LA, 70360, (985)232-7778
PROJECT MANAGER: DELATTE, BRIAN.

Bids must be prepared and submitted in accordance with Section 102 of the 2006 Louisiana Standard Specifications for Roads and Bridges as amended by the project specifications, and must include all information required by the proposal.

CLASS P(M)(HPC) CONCRETE FOR PRECAST PRESTRESSED CONCRETE PILES SECTIONS 805, 901, 1003, AND 1009

DESCRIPTION.

Section 805, Structural Concrete is amended as follows.

Subsection 805.01, Description, is amended by deleting the first paragraph and substituting the following:

This special provision includes the requirements for furnishing, placing, finishing and curing high performance portland cement concrete (Class P(M)(HPC)) for precast prestressed concrete piles. Except as modified in this special provision, Class P(M)(HPC) Concrete shall conform to Sections 805, 901, 1001, 1003, 1009, 1011, and 1018 of the 2006 Louisiana Standard Specifications for Roads and Bridges as previously amended by supplemental specifications.

MATERIALS.

Section 805, Structural Concrete is further amended as follows.

Subsection 805.02 Materials is amended to include the following in Table 805-1:

Concrete Class	Use
P(M)(HPC)	High Performance concrete precast bridge members (Piles)

Section 901, Portland Cement Concrete is amended as follows.

Subsection 901.02 Materials is amended to include the following:

The use of silica fume conforming to AASHTO M307, with the exception of Loss on Ignition (LOI) which shall not exceed 6.0 percent, or ASTM C 1240, will be permitted.

CONSTRUCTION REQUIREMENTS.

Section 805, Structural Concrete is further amended as follows.

Subsection 805.14, Prestressed Concrete is amended as follows:

Heading (e), Curing, is deleted and the following substituted:

To establish adequacy of curing methods and to determine whether concrete has attained the required compressive strength, a minimum of ten test cylinders shall be made and cured under the same condition as the corresponding member using a thermocouple controlled device (TCD). Three cylinders shall be saved for testing on the 56th calendar day after casting to determine that the required strength has been achieved. The remaining seven cylinders may be tested at any time as required by the contractor. However, no more than three cylinders shall be tested in one day. If all seven cylinders have been tested and the concrete has not obtained the required strength, the members involved shall be held at the plant until the 56-day cylinders are tested. If the average 56-day concrete cylinder strength has not achieved the required strength, all members involved will be subject to rejection. Acceptance will be made in accordance with the Department's manual entitled "Application of Quality Assurance Specifications for Precast-Prestressed Concrete Plants." Concrete

elements shall be cured for a minimum duration of 72 hours at 100 percent relative humidity. If the steam curing process stops before 72 hours, continue curing the concrete element for the remaining part of the 72-hour curing period by continuous moisture curing. Hot weather concrete limitations as stipulated in Subsection 901.11(b) shall not be applicable for steam curing; however, precautions such as cooling of forms will be required.

Steam curing shall be done under a suitable enclosure to contain the steam in order to minimize moisture and heat losses. The contractor shall ensure that the enclosure is closed around the ends of the piles closest to the anchorage abutments at each end of the prestressing bed. Initial application of steam shall begin only after concrete has reached its initial set as determined by ASTM C403. When used, steam shall be at 100 percent relative humidity. Application of steam shall not be directly on concrete. During application of steam, concrete temperature shall be increased at a rate not to exceed 40° F per hour until the desired concrete temperature is achieved. The concrete temperature shall not exceed 160° F. Steam curing may continue until concrete reaches release strength. At the contractor's option, the application of steam may be reduced or discontinued to ensure that the concrete temperature does not exceed 160° F. If structural defects occur, the defective members will be rejected. Contractors shall detension strands before the internal concrete temperature has decreased to 20° F less than its maximum temperature. The contractor will be permitted to add steam to maintain the internal concrete temperature within 20° F of the maximum temperature. Two recording thermometers showing time-temperature relationship in the concrete shall be furnished for each 200 ft. of bed. For piles, one thermometer shall be located midway between the outside corners of the pile and the nearest edge of the center void. If a void is not provided, one thermometer shall be provided at the center of gravity of the cross section.

Heading (g), Pretensioning Method, is amended by deleting the first paragraph and substituting the following:

Prestressing strands shall be accurately held in position and stressed by approved jacks. A record shall be kept of the jacking force and tendon elongation produced. Several units may be cast in a continuous line and stressed at one time. Sufficient space shall be left between ends of members to permit access for cutting strands after concrete has attained required strength. Sufficient free strand shall be left in the line to ensure that cracking of the members does not occur as the temperature of the members decreases prior to the detensioning of the strand. No bond stress shall be transferred to concrete nor shall end anchors be released until concrete has attained specified release strength as shown by cylinders made in accordance with DOTD TR 226 and cured under the same condition as the corresponding member using a TCD and tested in accordance with DOTD TR 230. Strands shall be cut or released in such order that lateral eccentricity of prestress will be a minimum in accordance with approved shop drawings. Sheathing used to debond prestress strands shall be constructed of polyethylene having sufficient rigidity to prevent bonding of the pre-stressing strand and concrete. The sheathing shall be split type sheathing having a minimum thickness of 0.03 inch (0.75mm) and shall be of sufficient width to maintain a 0.75 inch, ±1/16 inch (20 mm, ±2 mm) overlap after being placed on the strand. The joints between segments of sheathing shall be taped to prevent leakage of concrete into the sheathing.

Section 901, Portland Cement Concrete, is amended as follows.

Subsection 901.05, Sampling and Testing, is amended to include the following:

Testing of samples (ACI 301) shall be performed by an AASHTO Materials Reference Laboratory(AMRL) with PCC certification or certified department personnel and labs.

Testing of the plastic properties of the concrete, including air content, shall be made only after the addition of all admixtures and at the discharge end of any pumping equipment.

Neoprene caps with a durometer hardness of at least 70 shall be used for testing all (HPC) concrete.

Subsection 901.06, Quality Control of Concrete, is amended to include the following paragraph:

A representative of the admixture manufacturer shall be present for batching start up and during initial concrete placement.

Subsection 901.06 is further amended as follows.

Heading (a), Mix Design, is amended to include the following paragraphs:

Concrete Class P(M)(HPC) shall have an average compressive strength at 56 days $\geq$ 6,000 psi (41.4 MPa).
Slump $\leq$ 10 inches ($\leq$ 250 mm)
Concrete mix design and slump shall be selected by contractor to ensure that concrete does not segregate.
Permeability (total charge passed) shall be $\leq$ 1,000 coulombs at 56 days.

For Class P(M)(HPC) concrete, the contractor shall make two demonstration trial batches, of at least 3 cu. yd., on separate days at the prestressed concrete pile plant to show that the pile sections can be cast with the proposed mix design. Materials used in concrete batches shall be identical to those that will be used in production. These demonstration batches shall be made sufficiently before the production piles are cast to demonstrate that design compressive strength and permeability can be achieved. Cylinders shall be made and cured under the same condition as the corresponding pile section using a thermocouple controlled device (TCD). The cylinders shall be cured and tested in the same manner as acceptance cylinders in a production mode. The design trial batch shall meet the minimum design compressive strength before mix design approval will be given. Test results for slump, air content, wet unit weight, permeability and compressive strengths at concrete ages of 1, 3, 7, 28, and 56 days shall be submitted. The verified time-temperature history of the concrete during the initial curing period shall be submitted. If requested, the contractor shall furnish materials to the engineer for further verification of trial mixes. The contractor shall strictly adhere to the manufacturer's written recommendations regarding the use of admixtures, including storage, transportation and method of mixing.
Subsection 901.06 is further amended to add the following Heading.

Heading (e), Quality Acceptance and Verification Tests:

Rapid chloride permeability tests shall be performed by a Construction Engineering and Inspection Service (CEI) or department laboratory for acceptance depending on the contract. If the contract provides for CEI then as a quality assurance (QA) verification measure, Louisiana Transportation Research Center (LTRC) will mirror the permeability testing by the CEI. The cylinders provided to LTRC for verification measures will be randomly selected by the engineer from the same set of cylinders provided to the CEI. This will require double the sample cylinders to be made for these occasions.

Sampling frequency for permeability testing will be as follows (based on a specified maximum permeability of 1000 coulombs):

The sampling frequency will be based upon the permeability results of the production samples. Based on historical results and statistical methods the sampling frequency may be increased up to 50%. The engineer will obtain from the Headquarters Construction Section Fabrication Engineer any approved changes in the sampling frequency.

Four[1] permeability cylinders will be made using cylinder molds with an inside diameter of 4 inches (100 mm) and a length of 8 inches (200 mm) and appropriately labeled for each of the following cast-in-place structural elements:

[1](Eight (4" X 8") cylinders will be required for CEI jobs)

These four or eight permeability cylinders per structural element will constitute a group.

If the permeability is less than 500 coulombs for the trial batch testing results, then the engineer shall randomly select one group of permeability cylinders for testing, at a frequency of one (1)for every 1000 linear feet (305 lin m) of pile.

If the permeability is less than 750 coulombs and greater than 500 coulombs for the trial batch testing results, then the Engineer shall randomly select one group of permeability cylinders for testing, at a frequency of one (1) for every 750 linear feet (229 lin m) of pile.

If the permeability is less than 1000 coulombs and greater than 750 coulombs for the trial batch testing results, then the Engineer shall randomly select one group of permeability cylinders for testing, at a frequency of one (1) for every 500 linear feet (152 lin m) of pile. For this category, the contractor is responsible for the cost of the increased testing frequency.

A test is defined as the average of four (4) specimens taken from four (4" X 8") (100mm x 200mm) permeability cylinders prepared and tested for permeability in accordance with AASHTO T-277 (ASTM C1202) and cured under the same conditions as the concrete element represented for a minimum of 24 hours at the jobsite. The QA verification samples will then be transported by the CEI to LTRC for continued lab curing and storage until testing. The remaining cylinders or parts of cylinders will be appropriately labeled and kept in case of failing permeability results which will require retesting or in case of any disputes in the results. Only after passing test results with no possibility of dispute will the remaining cylinders/parts be discarded.

Acceptance permeability test results shall be below the maximum value of 1000 coulombs (56 day test). If test results exceed the allowable criteria (1000 coulombs) the product will be rejected. Further production will cease and investigation and/or testing will be required subject to review by the Fabrication Engineer prior to resumption of fabrication.

Subsection 901.07, Substitutions, is amended to include the following in Table 901-2:

Structural Class	**Substitute**
P(M)(HPC)	No substitutions

Subsection 901.08, Composition of Concrete, is amended as follows.

Heading (a), Cement, is amended to include the following paragraphs:

For Class P(M)(HPC) concrete, the contractor will be permitted the use of silica fume up to a maximum of 10 percent by weight of the total combination of cement, fly ash and silica fume; and fly ash, with Type I, I(B), I(C), II or III portland cement, up to a maximum of 35 percent by weight for the total combination of cement, fly ash and silica fume.

Subsection 901.08, Composition of Concrete, is further amended to add the following Headings.

(e) Compressive Strength, Structural Concrete:

Cylinders by which strength of Class P(HPC) and Class P(X)(HPC) concrete are to be determined shall be cured under the same condition as the corresponding members using a thermocouple controlled device (TCD), until detensioning of the strand. Thereafter, cylinders shall be cured alongside the members that they represent. Neoprene caps with a durometer hardness of at least 70 shall be used for testing all (HPC) concrete.

(f) Permeability:

High performance concrete (HPC) mix designs shall be tested for rapid chloride permeability in accordance with AASHTO T-277 and ASTM C1202. The permeability samples shall have a 4 inch (100 mm) diameter and a length of at least 8 in. (200 mm). Class P(M)(HPC) concrete shall be cured under the same condition as the corresponding members using a thermocouple controlled device (TCD), until tested 56 days after casting. The average value of three specimens shall be reported.

Subsection 901.11 Temperature Limitations is amended as follows.

Heading (c), Cold Weather Limitations, is amended by deleting the last sentence of the first paragraph.

Heading (c), Cold Weather Limitations, is further amended to include the following paragraph:

Due to the strength acceleration characteristics of silica fume inherent in Class P(M)(HPC) mixes, cold weather limitations for mixes containing GGBFS (slag) and Class F fly ash are waived. Class C fly ash will not be permitted. Class P(M)(HPC) concrete shall adhere to the cold weather limitations for plain portland cement mixes as stated in this subsection.

Subsection 901.12, Acceptance and Payment Schedule, is amended to include the following paragraph:

In addition, Class P(M)(HPC) concrete shall not be accepted and shall be removed if the specified permeability of less than or equal to 1,000 coulombs is not achieved in 56 days.

Also, Class P(M)(HPC) concrete shall not be accepted and shall be removed if the specified compressive strength, of greater than or equal to 6,000 psi, is not achieved in 56 days.

Section 1003, Aggregates, is amended as follows.

Subsection 1003.02, Aggregates for Portland Cement Concrete and Mortar, is amended as follows.

Heading (a), Fine Aggregate, is amended to include the following paragraph:

For Class P(M)(HPC) concrete, other gradations of concrete sand will be permitted if demonstrated in trial mixes to produce the required concrete properties and accepted as part of the proposed mix design.

Heading (b), Coarse Aggregate, is amended to include the following paragraph:

For Class P(M)(HPC) concrete, other gradations of uncrushed and crushed concrete coarse aggregate will be permitted if demonstrated in trial mixes to produce the required concrete properties and accepted as part of the proposed design mix.

Section 1009, Reinforcing Steel and Wire Rope, is amended as follows.

Subsection 1009.05, Steel Strand for Pretensioning, is amended to include the following:

The contractor shall obtain certification from the strand supplier that the strand will bond to the concrete of normal strength and consistency in conformation with the prediction equations for transfer and development length given in the AASHTO specifications included in the plans.

NS CORROSION RESISTING DEFORMED REINFORCING STEEL (06/09):

DESCRIPTION. This item consists of furnishing, handling, fabricating and placing corrosion resistant, galvanized, or stainless steel deformed reinforcing steel in accordance with the plans and shall conform to Section 806 of the 2006 Standard Specifications, except as amended by this special provision.

MATERIALS. Deformed reinforcing steel for this item shall be as follows:
Corrosion Resistant steel shall conform to ASTM A 1035 / A 1035M. Material yield strength shall be 60,000 psi minimum.
Galvanized steel shall conform to ASTM A 767 / A 767M. Material yield strength shall be 60,000 psi.
Stainless steel shall conform to ASTM A 955 / A 955M and shall be Type 316LN UNS Designation S31653, UNS Designation S31803, or UNS Designation S32304. Material yield strength shall be 60,000 psi.
Accessories such as tie wires and metal bar supports used in the fabrication, storage and placement of the corrosion resisting deformed reinforcing steel shall not adversely affect the corrosion resistance of, nor cause corrosion of, the corrosion resisting deformed reinforcing steel.

CONSTRUCTION REQUIREMENTS. This item shall be installed in accordance with the plans, Section 806 of the 2006 Standard Specifications, and as directed.

MEASUREMENT. This item, completed and accepted, will be measured for payment per pound (kg) in accordance with Subsection 806.09, and will include all materials, labor, equipment, and tools necessary to complete the work. Additional weight of galvanized coating or cleaning and galvanized coating repair will not be included in the pay quantities.

PAYMENT. Payment for Deformed Reinforcing Steel will be made at the contract unit price under:

Item No.	Pay Item	Pay Unit
NS-800-00560	Deformed Reinforcing Steel (Stainless Steel)	Pound (kg)

ENVIRONMENTAL PROTECTION (08/06): Subsection 107.14 of the 2006 Standard Specifications is amended to include the following paragraphs at the end of this subsection.

The Notice of Intent (NOI) will be submitted by the Department to the Louisiana Department of Environmental Quality (LADEQ) prior to the project letting. The project engineer will complete and submit the Notice of Termination (NOT) to the LADEQ after final stabilization of the site, in accordance with the terms of the permit.

The use of erosion control features or methods other than those in the contract shall be as directed. The Storm Water Pollution Prevention Plan shall be comprised of Section 204 of the standard specifications along with applicable supplemental specifications and special provisions, and Standard Plan EC-01, "Temporary Erosion Control Details."

General Note:

4. The instrumentation will be purchased through the state research project (LTRC 07-4ST) to LSU, in compliance with these LTRC project requirements.

6. Other than during the installation of each gauge, the contractor will need to be aware to avoid damage to the instrumentation cables at all stages of construction. The contractor will be financially responsible for both the cost and labor of the replacement of the gages, wires, and equipment if the damage is due to the contractor's negligence.

Item NO. 4, Pressure Cells on Backwall of Abutment

This item consists of installing pressure cells on the backwall of the abutment. These cells are being installed by BDI personnel and the research team to monitor soil pressure variations behind the backwall as they are expected to change as longitudinal forces are applied by the superstructure expansion/contraction with temperature. After the backwall cap has been cast, each pressure cell will be mounted by BDI personnel at the shown locations using stainless mounting hardware. In addition, the contractor shall provide a mason for a small pad of mortar to be placed behind each cell during installation to ensure that it is making uniform contact with the concrete surface. The cable will then need to be anchored along its length to its exit from behind the abutment and routed to the data logger location. Note that if any foam is installed on the backwall, it will need to be cut out large enough to accommodate the pressure cells. The cells shall be installed prior to any foam. The backfill material around the cells shall be placed in a manner that would not damage any instrumentation. Each pressure cell can be installed in approximately 2-3 hours.

Item NO. 7, Pore Water Pressure Sensors

This item consists of installing pore water pressure sensors. These will be installed by the contractor and research team during the backfill process and the contractor must use care in routing and protecting the cables during installation. Similar to the soil pressure cells, large objects will need to be removed around the sensors. BDI estimates installation time to be about one hour per gauge.

Item NO. 9, Installation of Embedded Sensors "Sister Bars"

BDI personnel and the research team will install the embedded gages (sister bar strain gages) on the bridge slab reinforcement after it has been laid out and before concrete is cast. The contractor shall provide a time window of three days and appropriate support for BDI personnel to access the construction site in order to actually install the embedded gages. The 12 embedded sensors will be installed by BDI personnel on the positive moment rebars (bottom rebars) at the mid-span of Approach Span, Spans 1, 3, and 6, each section with two rebars installed. The other four embedded sensors will be installed by BDI personnel on the negative rebars (top rebars) at Bents 1 and 6, each section with two rebars installed. BDI estimates installation time to be about one to two hours per gauge.

During the concrete casting process, the contractor shall take proper precautions not damage the embedded gages. The construction contractor shall inform BDI personnel 7 days in advance before the concrete is cast so BDI personnel can monitor the concrete casting process to ensure no damage will be caused during construction process. The contractor will be financially responsible for the replacement of these gauges, wires, and equipment if the damage is due to the contractor's negligence.

Item NO. 11, Surface Strain Sensors
No special preparation is required for these as they are mounted with standard concrete anchors. BDI estimates installation time to be about two hours per gauge. See the diagram under Phase 3 for Strain Sensor locations.

Item NO. 12, Tilt meters
No special preparation is required for these as they are mounted with standard concrete anchors. BDI estimates installation time to be about two hours per gauge. See the diagram under Phase 3 for Tilt meter locations.

Item NO. 14, General support required from contractor for the instrumentation effort
BDI personnel and the research team will do their best to accommodate the contractor's schedule for each phase of installation, however, it is imperative that the contractor maintain excellent communication with BDI personnel and the research team throughout the effort and provide the required advance warnings.

General support required by contractor for instrumentation installations will always include a contractor's representative to oversee the effort and to provide any necessary safety equipment such as harnesses and to ensure that proper safety procedures are being followed. BDI personnel and the research team will be responsible for providing their own hardhats, safety glasses, boots, and safety vests at all times.

Other items required during various phases of the sensor installations will be provided and paid for by contractor and these items include:

- Electrician, all necessary conduits, and components (corners, mounting hardware, etc.) for protection of all embedded and external sensors cables.
- Access to the instrumentation points such as manlifts, forklifts, or ladders.
- Power generator and extension cords for operating standard power tools such as hammer drills.
- Carpentry capabilities for fabricating temporary housings and other protective items from plywood, etc.
- Shovels, soil compaction/sifting equipment and operators.

Itemized Instrumentation List

Item	Description	Quantity
1	**96- Channel Logger System** Configured to read Vibrating Wire Sensors plus temperatures. Includes Data logger, Battery –pack Power Supply, 16-channel MUXs, VW and Temperature Signal Conditioning, PC Communication Interface and Cables, Wired up and housed in 16" x 18" fiberglass housing.	1
2	**Remote PVC MUX Housing : BDI –MUXPCV** One per multiplexer needed if all sensors are not wired back to the main data logger enclosure	1
3	**Cellular Phone Modem: BDI CD- LINK** Digital cellular Modem includes mounting kit. NOTE: Modem requires data plan. This must be purchased separately through the proper carrier and monthly charges for the phone service will be incurred by LTRC.	1
4	**Cell Antenna: BDI CD-Yag** Antenna for use with Cellular Modem, includes 10'of cable	1
6	**VW Embedded Temperature Thermistor**	20
7	**VW piezometer**	6
8	**VW Soil Pressure cells**	9
9	**VW Rebar Strainmeters ("Sisterbars"): BDI VW 4911** VW Strain gage mounted between two sections of rebar designed to be tied to the rebar cage before concrete is poured.	24
10	**VW Strain Gauges: BDI VW 4000** Surface mount VW Strain Gauge 3" gage length w/10' BDI BC -250 cable, includes custom mounts, BDI aluminum cover.	32
11	**VW Tilt meter : BDI VW 6350** VW Tilt meter w/10' BDI BDI- BC-250 Cable , includes bracket mount, BDI aluminum cover.	2
12	**VW Extension cable : BDI-BC-250** Rugged Blue VW Sensor –to –MUX Interconnect cable: *Additional sensor cable ,first 10' included in sensor price*	4,000 ft
13	**MUX Cable : BDI –MUX -550** Interconnect cable for remote MUX	200 ft

Contract ID: 064-01-0040 **Project(s):** 064-01-0040

SECTION: 1 GENERAL ITEMS

Proposal Line Number	Item ID	Description Unit Price (In Words, Ink or Typed)	Approximate Quantity	Unit of Measure
0057	805-04-00100	Class AA(M) Concrete	2,227.870	CUYD
		_____		Dollars
		_____		Cents
0058	805-11-00100	Strip Seal Joints	429.390	LNFT
		_____		Dollars
		_____		Cents
0059	806-01-00100	Deformed Reinforcing Steel	2,168,943.000	LB
		_____		Dollars
		_____		Cents
0060	807-08-00100	Structural Metalwork		LUMP SUM
		_____		Dollars
		_____		Cents
0061	810-04-00100	Steel and Concrete Railing	8,070.000	LNFT
		_____		Dollars
		_____		Cents
0062	813-01-00100	Concrete Approach Slabs	279.890	SQYD
		_____		Dollars
		_____		Cents
0063	NS-203-00001	Bucket Dredging	74,800.000	CUYD
		_____		Dollars
		_____		Cents
0064	NS-722-00001	Resident Engineers' Housing Allowance	31.000	MNTH
		_____		Dollars
		_____		Cents